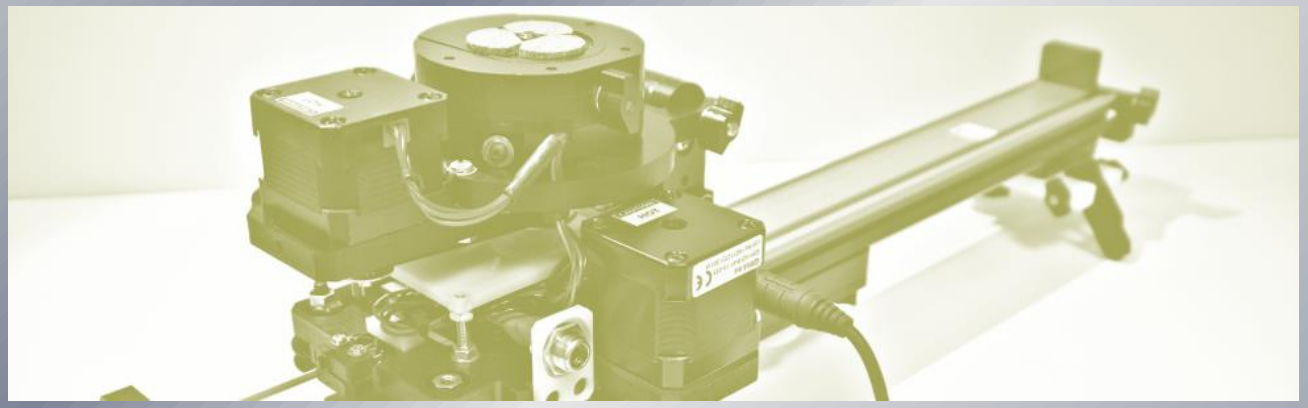
Mechatronics for Everyone



D-CamSRL User Manual

Version: 1.0
Date: 10/01/2015
Prepared by: engineer S. Bartkevičius

Please read this manual carefully. D-CamSRL is professional complex equipment and having no basic knowledge might lead to incorrect operation or damage to device and its parts.

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1. Introduction and short description

D-CamSRL (V1.0) is an automated photo-film camera slider-rotator. D-CamSRL is a great device for your mobile photo and movie laboratory. Sliding and rotation simultaneously enables covering wide angles (ex. making of 360°panoramas), precise and quick camera positioning, object following and so on.

D-CamSRL is easily detachable from its rail, compact and light, convenient to pack if you are going on a trip. 0,5 and 1,0 m rail-bases can be extended up to 4 times simply adding additional rails to them.

D-CamSRL uses software “D-CamSRL Control” deployed on your Android device and communicates over Bluethooth.

For more product information, please refer to www.dukubu.lt.

Main D-CamSRL V1.0 characteristics:

vertically (90°) carried weight:	1,0 kg;
device weight (w/o rail):	1,5 kg;
standard rail length:	0,50 or 1,00 m; extension for up to 4x;
camera platform:	integrated, 1/4“ thread, tilt - 0-90°;
drives and power supply:	stepper-belt, 6 VDC battery;
motion, speeds, modes:	sliding-step (0,11-50 mm/s); rotational-step (0,000625-0,1 rot/s);
rail end sensors:	yes, device slide stops, rotation goes on;
control:	over Bluetooth, any Android smart-device;
battery voltage:	shown in App;
shooting:	from smart-device (manual/automatical every X s with Y s for exposure);
all strangulations:	handles (no screw drivers needed);
legs for putting on the ground:	yes, movable over the rail length, folding-up;
mounting on tripod:	yes, 1/4“, movable over the rail length;
fixing to rail:	yes.

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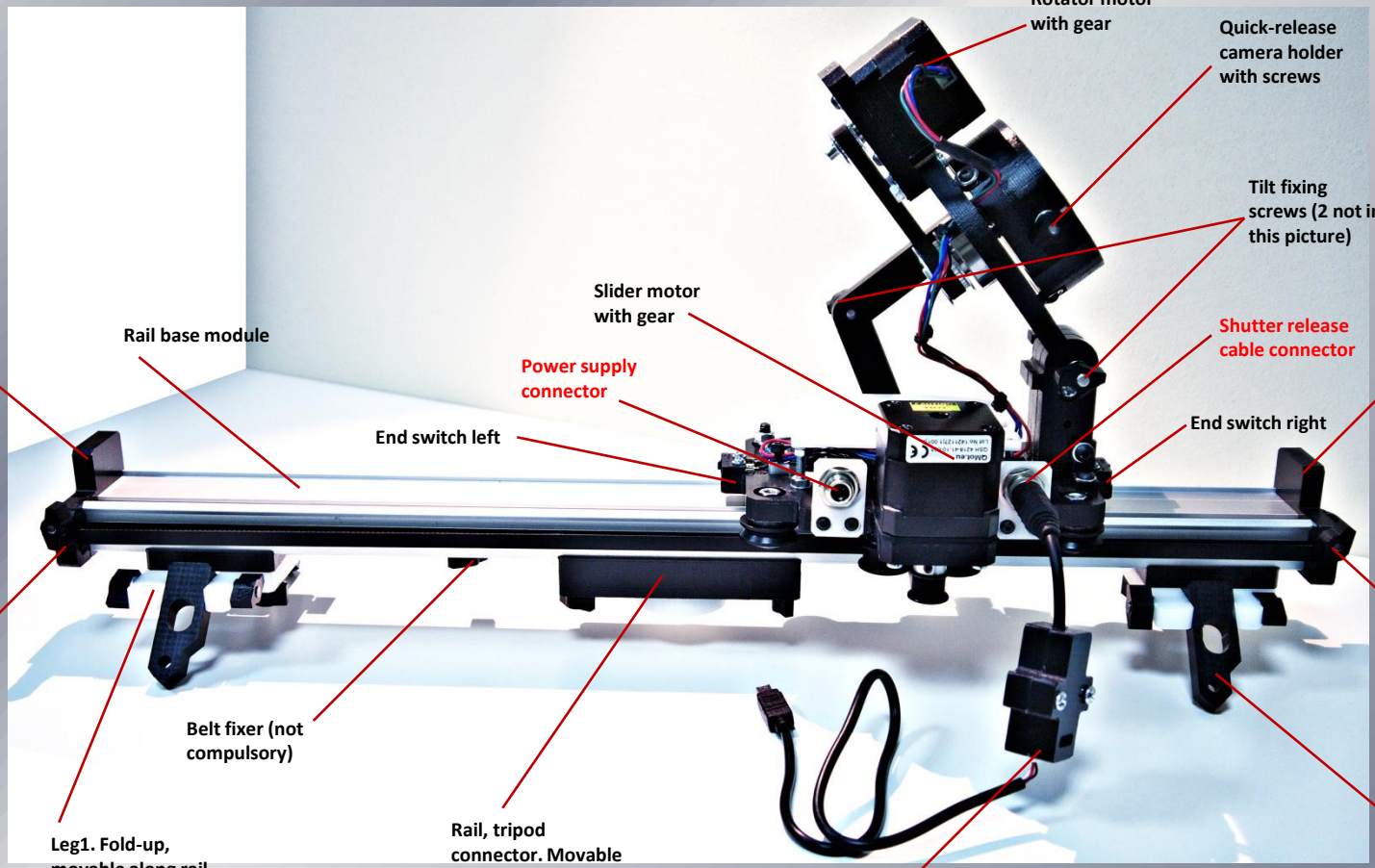
2. Element layout

All main elements of D-CamSRL system are shown below:

Caution: please study element layout carefully. Operating D-CamSRL is not possible without good knowledge of system's elements.


Rotator motor with gear
Quick-release camera holder with screws
Tilt fixing screws (2 not in this picture)
End-plate left. Unscrew for maintenance only
Slider motor with gear
End-plate right. Unscrew to add rail module
Rail base module
Shutter release cable connector
Power supply connector
End switch left
End switch right
Belt holder right. Unscrew to tighten, take-off belt
Belt holder left. Unscrew for maintenance only
Belt fixer (not compulsory)
Leg1. Fold-up, movable along rail
Rail, tripod connector. Movable along rail
Leg2. Fold-up, movable along rail
Shutter-release cable

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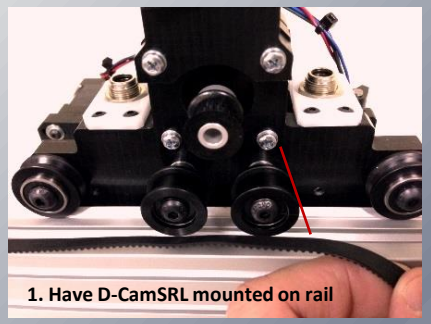
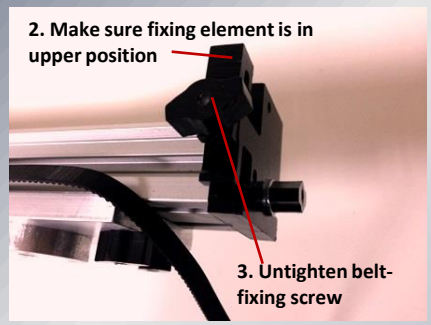
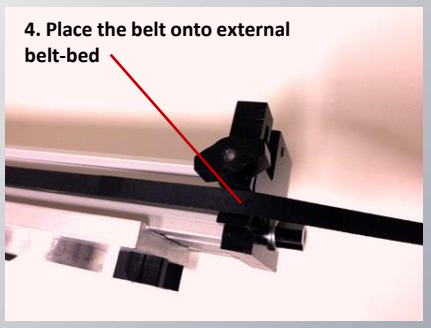
3. Belt fixing to D-CamSLR and end-plates

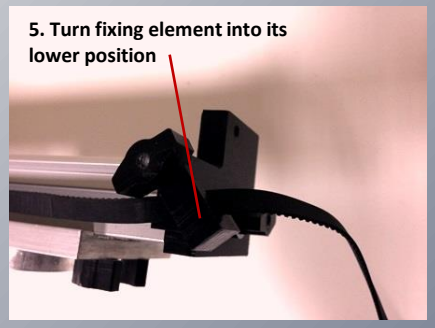
How to correctly attach the belt to D-CamSRL is shown below:

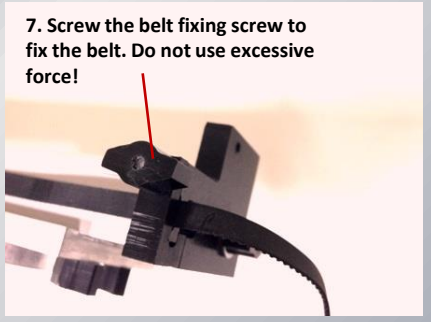


How to fix end-plates to rail is shown below:









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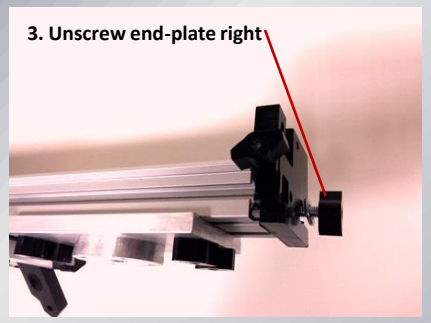
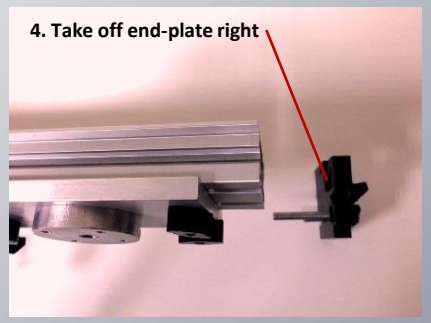
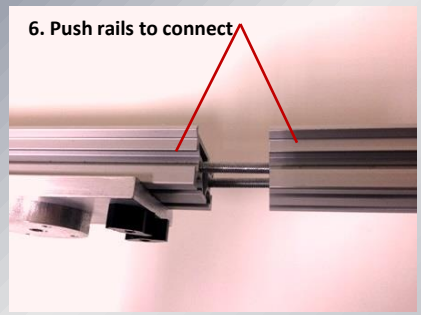
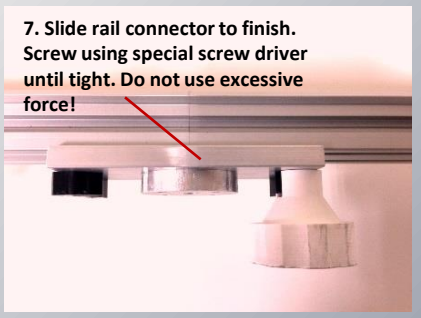
4. Connecting rails

Sequence to connect/disconnect rail elements is shown and explained below:









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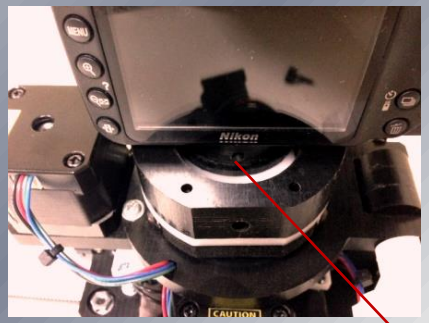
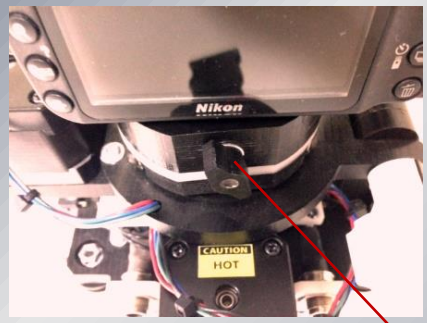
5. Attaching the camera to D-CamSRL

Sequence to attach camera to D-CamSRL is shown below (use same sequence backwards to detach the camera from D-CamSRL):



5. Slide quick-camera release holder with camera back to its nest



6. Fix quick-release camera holder with its screw

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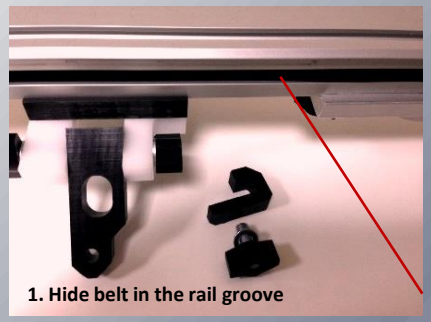
6. Hiding excessive part of belt, locking D-CamSRL

To fix excessive part (not used with shortened rail) to the rail work according to instructions below:



Lock/unlock D-CamSRL while transporting with the rail or having rail in non-horizontal position:

Caution: do not forget to unscrew the lock screw before operating D-CamSRL.

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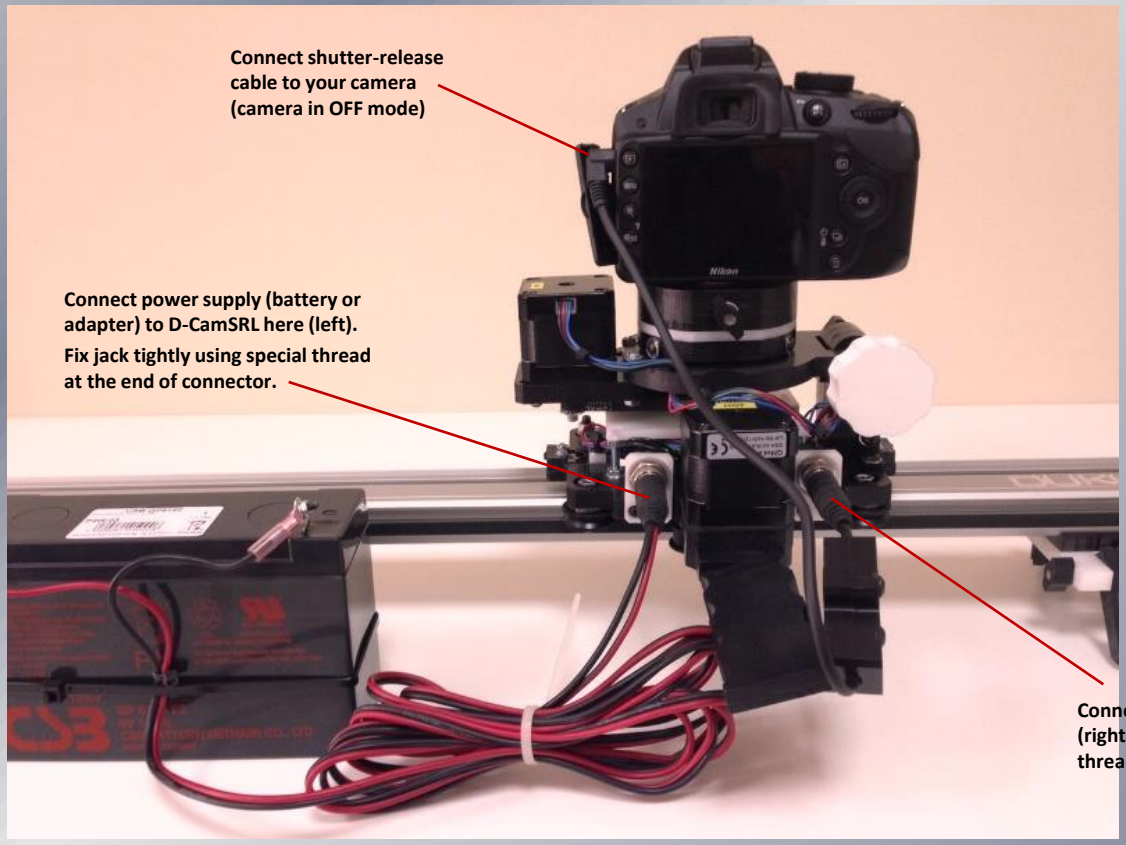
7. Powering D-CamSRL, connecting shutter-release cable

Caution: please pay close attention when connecting. Connecting power supply to shutter-release jack can lead to electronics damage.


Connect shutter-release cable to your camera (camera in OFF mode)
Connect power supply (battery or adapter) to D-CamSRL here (left).
Fix jack tightly using special thread at the end of connector.
Connect shutter-release cable here (right). Fix jack tightly using special thread at the end of connector.

Caution: please charge the battery fully before first use. Never keep the battery discharged for longer times, especially at low temperatures.

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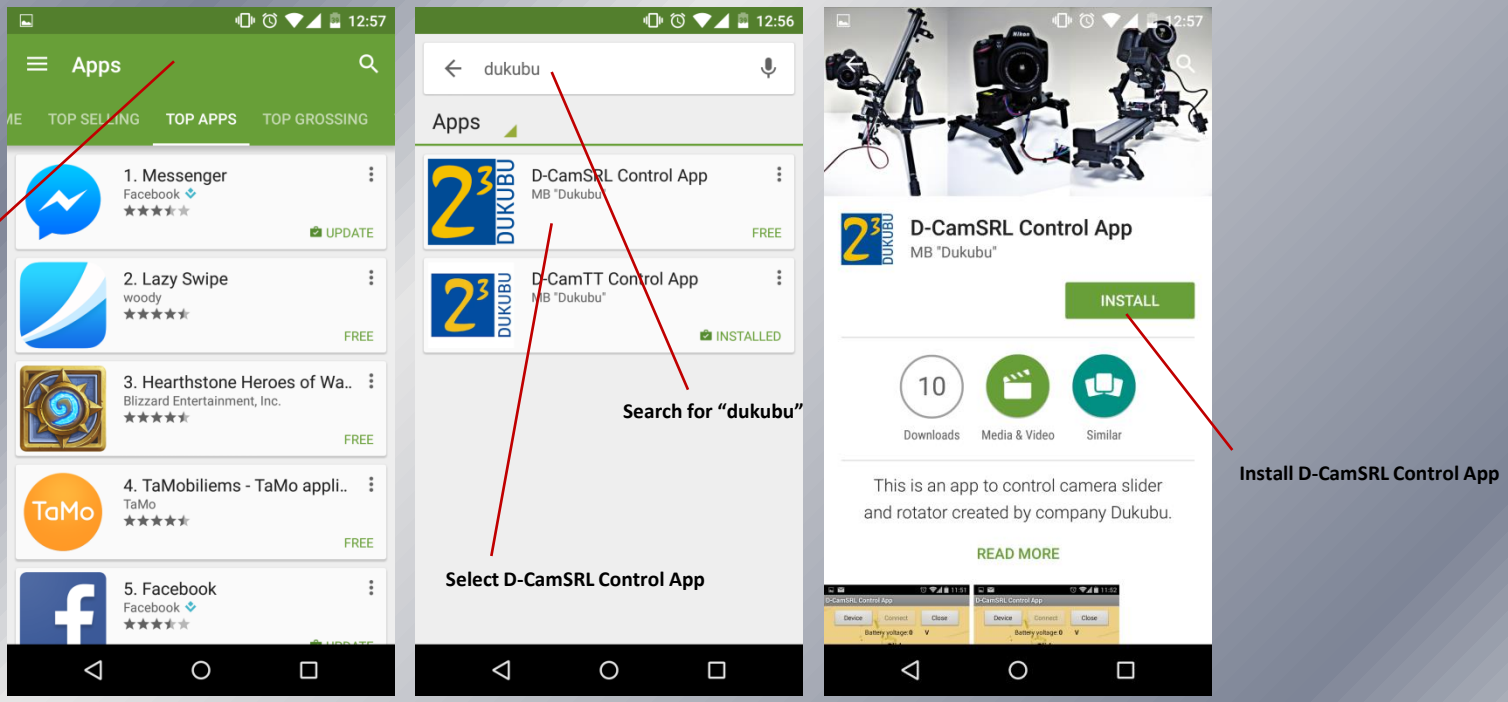
8. Introduction to “D-CamSRL Control App”

8.1. Short description

“D-CamSRL Control App” is used to control D-CamSRL sliding and rotational movements, respective speeds, as well as define parameters for time-lapse photography.

8.2. Installation

Please refer to “Google Play” to install “D-CamSRL Control App” for “Android” devices: search for “dukubu” and install.



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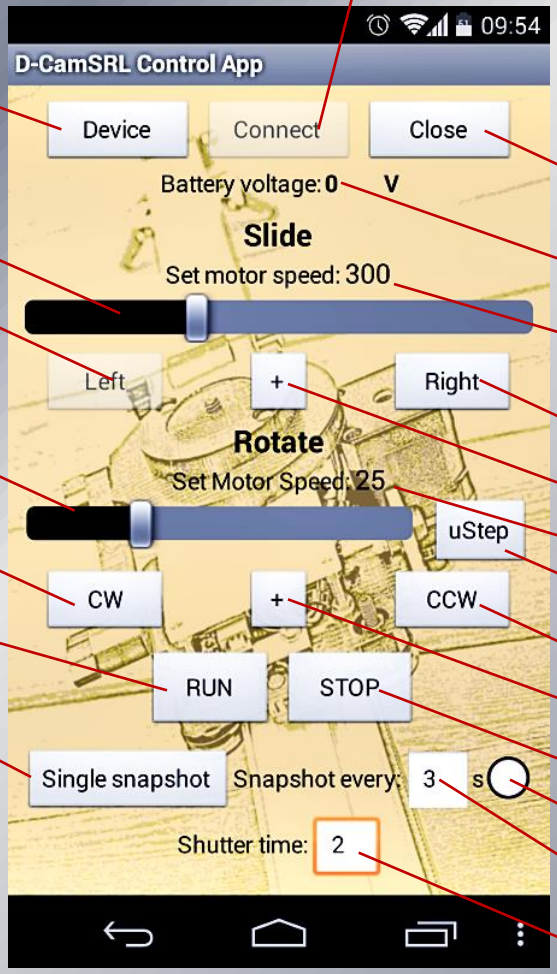
8. Introduction to “D-CamSRL Control App”

8.3. Main control window

“D-CamSRL Control App” screen:



Connect/disconnect to chosen paired device

Choose from paired devices

Slide speed bar (steps/s)

Set to move left

Rotate speed bar (steps/s)

Set to rotate clock-wise

Press to run all actions

Take single snapshot

Close application

Battery voltage (indication only)

Slide speed value

Set to move right

Increase slide speed by 1 step/s

Rotate speed value

Configure to rotate in microstep mode (1/8 of normal mode)

Set to rotate counter clock-wise

Increase rotate speed by 1 step/s

Press to stop all actions

Snapshot indicator

Set time-lapse cycle time

Set time-lapse still time

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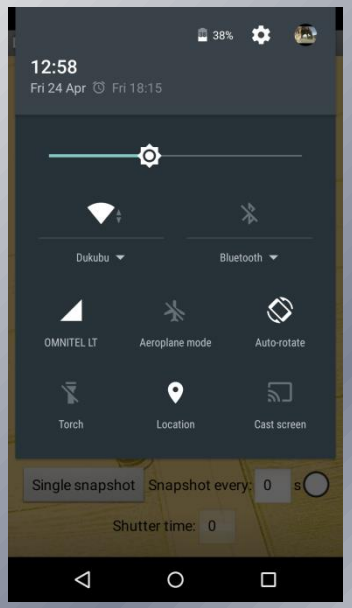
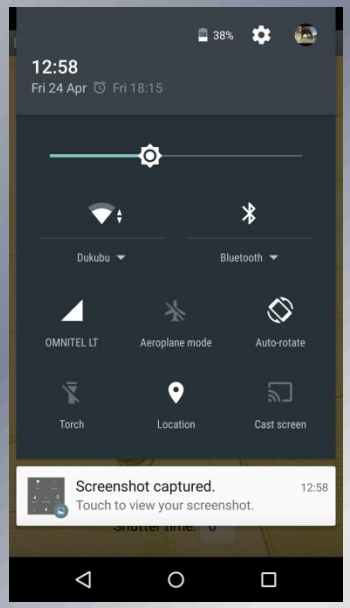
8. Introduction to “D-CamSRL Control App”

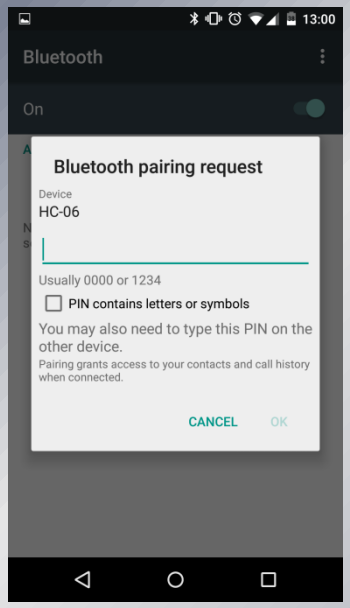
8.4. Pair device (for the first time)



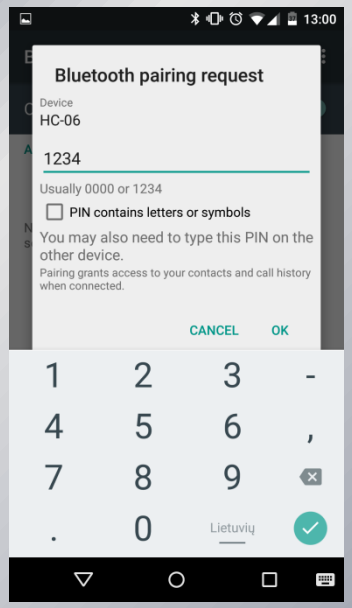
1. Go to “Quick Settings”



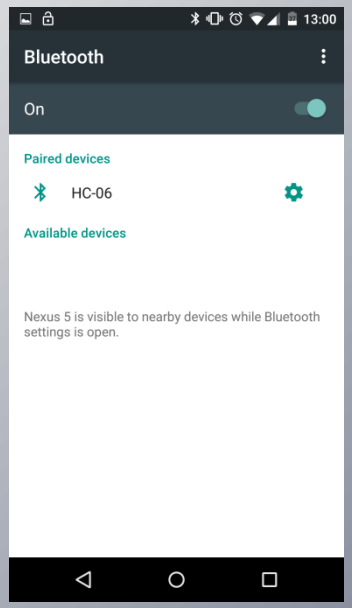
2. Enable Bluetooth



3. Choose “HC-06” found in not paired devices



4. Enter password “1234” and pair



5. Check if paired

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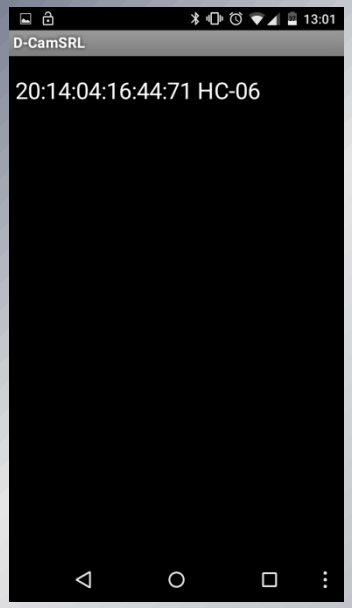
8. Introduction to “D-CamSRL Control App”

8.5. Start App and connect to device

1. Start “D-CamSRL Control App” and press “Device”



2. Select HC-06 device

3. Press “Connect” until “Device connected” message appears

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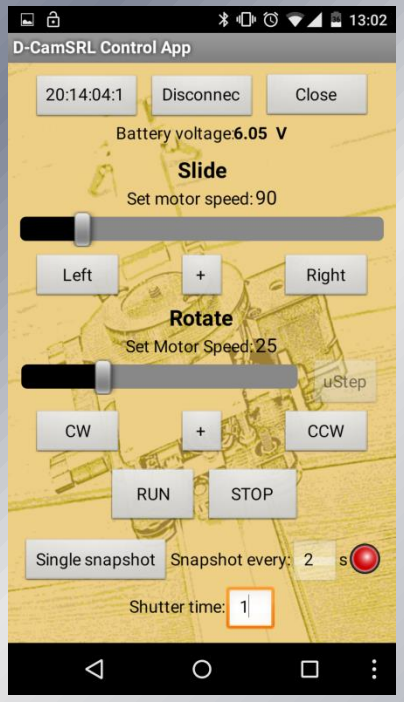
8. Introduction to “D-CamSRL Control App”

8.6. Run the device



- set desired parameters for slide and rotation direction, slide and rotation speed, time-lapse cycle and still times;
- press RUN/STOP for running and stopping D-CamSLR action or
- press “Single snapshot” to take accidental snapshot, or start/stop recording when in video mode;
- when in operation always press “STOP” before changing settings.

Caution: do not forget to unscrew the lock screw before operating D-CamSRL.

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